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Claims

1.   A method for ultrasonic testing of an object, wherein at at least one test moment an ultrasonic test signal (S1, S2) is transmitted into the object (2), while after a particular verification period (Δt_1, Δt_2) measured from said test moment, an ultrasonic verification signal (S1', S2') is transmitted into the

5   object (2), a possible echo of said test signal (S1, S2) being received from said object (2) at a particular first measuring moment, the possible echo being accepted as being the echo (E1, E2) of said test signal (S1, S2) only when an echo (E1', E2') of the verification signal (S1', S2') is received at a particular second measuring moment.

10   2.   A method for ultrasonic testing of an object, wherein at at least one test moment an ultrasonic verification signal (S1', S2') is transmitted into the object (2) while after a particular verification period (Δt_1, Δt_2) measured from said test moment, an ultrasonic test signal (S1, S2) is transmitted into the object (2), a possible echo of said test signal (S1, S2) being received from said

15   object (2) at a particular second measuring moment, the possible echo being accepted as being the echo (E1, E2) of said test signal (S1, S2) only when an echo (E1', E2') of the verification signal (S1', S2') is received at a particular first measuring moment.

3.   A method according to claim 1 or 2, wherein the possible echo of said

20   test signal is accepted as being the echo (E1, E2) of that test signal (S1, S2) only when the difference between the first and the second measuring moment is substantially equal to said verification period (Δt_1, Δt_2).

4.   A method according to any one of the preceding claims, wherein said test signal (S1, S2) and each associated verification signal (S1', S2') are equal

25   to each other and have in particular the same signal duration, the same amplitude and the same frequency spectrum.

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5.   A method according to any one of the preceding claims, wherein said
test signal (S1, S2) is transmitted into the object (2) at a first position, while
said verification signal (S1', S2') is transmitted into the object (2) at a second
position adjacent said first position.

5   6.   A method according to claim 5, wherein the distance between the
first and second position is smaller than approximately 1 mm, is in particular
approximately 0.5 mm or less, more in particular approximately 0.1 mm or
less.

7.   A method according to any one of the preceding claims, wherein said
10   verification period (Δt_1, Δt_2) is smaller than approximately 100 µs, more in
particular smaller than approximately 50 µs, more in particular smaller than
approximately 20 µs.

8.   A method according to any one of the preceding claims, wherein
successively a number of test signals (S1, S2, S3, S4) are transmitted into the
15   object (2), in particular with intermediate test periods (T) which are greater
than said verification period (Δt_1, Δt_2), while after and/or prior to at least one of
said test signals, at least one associated verification signal (S1', S2', S4', S4") is
transmitted into the object.

9.   An apparatus, evidently intended and designed for carrying out a
20   method according to any one of the preceding claims.

10.   An apparatus according to claim 9, wherein, during use, the
apparatus is moved along the object (2) at a particular measuring velocity (V),
while the measuring velocity (V) is in particular greater than approximately 10
m/s and more in particular greater than approximately 20 m/s.

25   11.   An apparatus according to claim 9 or 10, provided with a control, in
particular computer means, which control is designed for accepting an echo
received at a particular measuring moment as being an echo (E1, E2) of the
test signal (S1, S2) only when an echo (E1', E2') of the verification signal (S1',
S2') is received at a different measuring moment, and in particular when the

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difference between the one and other measuring moment is substantially equal to said verification period (Δt_1, Δt_2).

12.   The use of an apparatus according to any one of claims 9 – 11, in particular for testing objects, elements, rails, vehicle parts, vessel parts and/or
5   airplane parts and the like for defects.